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Supreme Court of the United States

QUANTA COMPUTER, INC., QUANTA COMPUTER USA, INC., Q-LITY COMPUTER, INC., COMPAL ELECTRONICS, INC., BIZCOM ELECTRONICS, INC., SCEPTRE TECHNOLOGIES, INC., FIRST INTERNATIONAL COMPUTER, INC. AND FIRST INTERNATIONAL COMPUTER OF AMERICA, INC.

Petitioners,

v.

LG ELECTRONICS, INC.,

Respondent.

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

BRIEF FOR CROPLIFE INTERNATIONAL AS AMICUS CURIAE SUPPORTING NEITHER PARTY

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INTEREST OF AMICUS CURIAE

CropLife International ("CropLife") is a membership organization representing the interests of the plant science industry.[1] CropLife's members include major biotechnology companies that hold valuable pat-

[1] Pursuant to Rule 37.6, CropLife states that no counsel for a party authored any part of this brief, that no party or its counsel made a monetary contribution intended to fund the preparation or submission of this brief, and that no person or entity other than CropLife or its members made such a contribution. Counsel of record for both parties have consented to the filing of this brief.

ents on plants, seeds, and plant genetic materials that replicate themselves in the course of normal use. As explained in further detail below, CropLife's members commercialize such products using limited licenses that allow growers to raise and sell one generation of crops, but not to save and replant the resulting crops to make subsequent generations of the patented product. CropLife members rely upon settled case law holding that the patent exhaustion doctrine does not invalidate such license limitations.

INTRODUCTION AND SUMMARY OF ARGUMENT

More than twenty-five years ago, this Court held that developers of novel living organisms may obtain utility patents for their inventions, and may exclude others from making, using, or selling them under the patent laws. *Diamond* v. *Chakrabarty*, 447 U.S. 303 (1980). Since then, biotechnology companies have invested large amounts of time and money to develop and patent bioengineered plants and plant genetic traits that improve upon familiar crops like soybeans, corn, and cotton. Bioengineered plant varieties can carry traits for, among other things, resistance to disease, insects, and herbicides, and thereby allow purchasers to produce more crops for less money. These benefits are so significant that American growers now use bioengineered plant varieties on over a hundred million acres of farmland—for some crops, over 90% of domestic production comes from bioengineered varieties.

Commercializing a patented plant variety or genetic trait poses special challenges. Because crop plants are self-replicating in normal use, a grower who purchases a particular seed or plant can replant the resulting crop to make many more such seeds and plants for his own use or for sale to others. If a grower were

allowed to do this with a patented plant, he could effectively compete with the patentee, preventing the patentee from recovering its research and development investments. Accordingly, crop biotechnology companies normally sell their products to growers pursuant to licensing agreements that limit the right to make future generations of patented products from the originals. Typically, a grower licensee is allowed to plant the patented seeds or plants and to raise crops for sale as commodities, but not to replant the crops to make new generations of the patented product.

The Federal Circuit has repeatedly held that the patent exhaustion doctrine does not apply to license limitations of this sort. It has recognized instead that in selling one generation of a patented seed or plant, a patentee does not relinquish any rights in subsequent generations grown from the original—which have never been "sold" for purposes of the exhaustion doctrine. In deciding the case at bar, the Court should leave this body of law undisturbed. In addition, this Court has only applied the exhaustion doctrine to invalidate restrictions on the *use* or *sale* of a product. The doctrine does not apply to license limitations that merely restrain a purchaser from freely *making* new copies of the product for himself.

ARGUMENT

I. THE BIOENGINEERED CROP INDUSTRY DEPENDS ON LICENSING LIMITATIONS BACKED BY PATENT LAW PROTECTIONS

Advances in biotechnology are bringing fundamental changes to agriculture. While growers continue the traditional process of breeding plants to improve their yield and quality, they are now joined by geneticists, molecular biologists, and plant scientists who work di-

rectly with the genetic code of crop plants to improve them. Using genetic engineering techniques, these biotechnology industry scientists are speeding efforts to improve the natural characteristics of crop plants, and inserting beneficial characteristics into such plants that might never be developed using conventional breeding methods alone. The industry has already commercialized many improved varieties of crop plants—planted on more than 100 million acres of domestic farmland and 250 million acres worldwide[2]—and is in the process of developing many more products that will offer significant advantages to growers.[3]

A. The Bioengineered Crop Industry

Using biotechnology and modern plant breeding techniques, CropLife members have developed crop plants and seeds that deliver many kinds of benefits to growers and society.

First, bioengineered crop plants can carry traits that allow growers to increase crop yield and net profit from each acre of their land. Growers in the United States currently raise bioengineered varieties of canola, corn, cotton, papaya, soybeans, and squash that contain

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[2] International Service for the Acquisition of Agri-Biotech Applications, Executive Summary of Brief 35-2006, *available at* http://www.isaaa.org/resources/publications/briefs/35/executivesummary/default.html (last visited Nov. 12, 2007).

[3] CropLife focuses here on the relationship between the patent exhaustion doctrine and patents covering self-replicating bioengineered crops produced with the use of biotechnology techniques such as transformation and molecular marker assisted selection. However, all of the concerns discussed apply with equal force to any self-replicating plant, seed, cell, or genetic material that can be patented under 35 U.S.C. § 101.

yield-enhancing traits such as insect, disease, and herbicide resistance.[4] By taking advantage of those traits, domestic growers increased crop production by 8.3 billion pounds in 2005 even as they reduced their costs by $1.4 billion.[5] The benefits have been similar on a worldwide basis; one recent study reports that, between 1996 and 2004, growers used biotechnology to increase their incomes by a global total of $27 billion.[6] Such yield improvements must continue if food production is to keep pace with the expanding needs of the human population, which is projected to rise to almost eight billion in fifteen years. CropLife members are working to meet such needs by improving existing biotechnologies and developing new ones, including traits for improved nitrogen utilization and tolerance to cold, salinity, and drought.[7]

Bioengineered plants offer numerous environmental benefits as well. By incorporating genetic traits conferring pest resistance into crop plants, CropLife members allowed domestic growers to reduce pesticide use in crop production by more than 69 million pounds

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[4] *See* Fernandez-Cornejo & Caswell, *The First Decade of Genetically-Engineered Crops in the United States* 6 (USDA, Apr. 2006), *available at* http://www.ers.usda.gov/publications/eib11/eib11.pdf.

[5] *See* Sankula, *Quantification of the Impacts on US Agriculture of Biotechnology-Derived Crops Planted in 2005*, at 2 (National Center for Food and Agricultural Policy, Nov. 2006).

[6] Brookes & Barfoot, *GM Crops: The Global Socio-Economic and Environmental Impact—the First Nine Years 1996-2004*, at 7 (PG Economics Ltd., Oct. 2005), *available at* http://www.pgeconomics.co.uk/pdf/globalimpactstudyfinal.pdf.

[7] Fernandez-Cornejo & Caswell, *supra* n.4, at 6.

in 2005.[8] Genetic traits conferring herbicide resistance also enable "no-till" farming practices that decrease wind and water erosion and increase soil fertility and biodiversity.[9] Herbicide and pest resistance traits have also reduced global carbon emissions by reducing fuel use; all told, fuel-use reductions permitted by planting bioengineered crops eliminated more than a billion kilograms of carbon emissions in 2004 alone.[10] Bioengineered crops even help to generate greener fuels—for example, by carrying traits that increase ethanol yield.[11]

Finally, bioengineered crops promise significant health and nutritional benefits. For example, hundreds of thousands of children in developing countries suffer from blindness caused by Vitamin A deficiency, and more than one billion women suffer from iron deficiency anemia, because traditional food sources such as rice do not supply enough of these nutrients. But with the support of CropLife member Syngenta, scientists have developed "Golden Rice" that is bioengineered to produce iron and beta carotene (which is converted to Vitamin A by the body).[12] One study estimates that the

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[8] Sankula, *supra* n.5, at 3.

[9] Press Release, American Soybean Association, *Study Confirms Environmental Benefits of Biotech Soybeans* (Nov. 12, 2001), *available at* http://www.soygrowers.com/newsroom/releases/2001%20releases/ r111201.htm.

[10] Brookes & Barfoot, *supra* n.6, at 11-12.

[11] *See* Press Release, DuPont, *DuPont Technologies Addressing Biofuels Challenges, Says Ethanol Biofuels Leader* (Oct. 2, 2007), *available at* http://www2.dupont.com/Biotechnology/en_US/news/index2.html.

[12] *See* http://www.goldenrice.org (last visited Nov. 12, 2007).

health and welfare benefits of Golden Rice varieties in the Philippines alone could exceed $100 million.[13] Other scientists are developing bioengineered plant varieties that contain increased amounts of healthy antioxidants and omega-3 fatty acids, decreased amounts of harmful saturated fats, and even vaccines to prevent cervical cancer, hepatitis B, and other diseases.[14]

B. CropLife Members Use A Variety Of Licensing Mechanisms To Recover Their Research And Development Investments

The immense benefits that biotechnology has already delivered to growers and will deliver in the future do not come without cost. The process of researching promising genetic traits, incorporating them into crop plants, breeding useful varieties, and commercializing the resulting products is expensive and time-consuming. For example, Monsanto Company invested decades and hundreds of millions of dollars in developing a trait for tolerance to herbicides that could be used in crop plants, and Pioneer Hi-Bred International, Inc. and Syngenta (along with its predecessors) each invested comparable time and sums in developing crop plant traits for insect resistance. Although many of these investments have proven valuable in hindsight, for every innovation that is commercialized, biotechnol-

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[13] Zimmermann & Qaim, *Projecting the Benefits of Golden Rice in the Philippines*, 51 ZEF–Discussion Papers on Development Policy (ZEF Bonn 2002), *available at* http://www.zef.de/fileadmin/webfiles/downloads/zef_dp/zef_dp51.pdf.

[14] *See* Council for Biotechnology Information, *Products in the Pipeline*, *available at* http://www.whybiotech.com/index.asp?id=2095 (last visited Nov. 12, 2007).

ogy companies must investigate numerous dead ends that do not yield significant economic return.

Though such concerns are especially salient in the biotechnology industry, they are hardly unique to it. Instead, they are the paradigmatic concerns faced by any company that invests in innovation in hopes of profiting from the result. To encourage such companies to risk "often enormous costs in terms of time, research, and development," *Kewanee Oil Co.* v. *Bicron Corp.*, 416 U.S. 470, 480 (1974), the Patent Clause of the U.S. Constitution gives Congress the power to "promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries." U.S. Const. art. I, § 8, cl. 8. This Court has recognized that the laws Congress has passed pursuant to the Patent Clause, *see* 35 U.S.C. § 101 *et seq.*, apply to protect not only those who develop novel inanimate objects, but also those who invent novel living organisms, including, among other things, bioengineered bacteria and plant breeds. *See Diamond* v. *Chakrabarty*, 447 U.S. 303, 313 (1980) ("[T]he relevant distinction [is] not between living and inanimate things, but between products of nature, whether living or not, and human-made inventions."); *J.E.M. Ag Supply, Inc.* v. *Pioneer Hi-Bred Int'l, Inc.*, 534 U.S. 124 (2001). So long as an otherwise patentable organism "is not nature's handiwork," *Chakrabarty*, 447 U.S. at 310, the patent laws reward its inventor with the right to exclude others from making, using, or selling it.

But despite the many similarities between living things and inanimate objects under the patent laws, there is at least one profound difference: patented living things can self-replicate, producing genetically-identical copies of themselves in the course of their use.

Just like conventional varieties, bioengineered seeds and plants multiply rapidly, leaving growers not only a lucrative crop that can be sold for food value, but also a source of seeds from which to begin another planting generation. As an example, soybean seeds can multiply more than thirty-fold in the course of a single generation, so that a grower can transform a single seed into 1.7 million copies in just four years. Thus, the end result of the costly and time-consuming process of developing a patentable crop plant is, paradoxically, a product that is so readily reproduced that growers can easily take its benefits for granted, forgetting the resources the patentee invested into developing it.

The self-replicating nature of patented plants poses challenges to the crop technology industry. CropLife members must recover their research and development outlays if they are to continue their work on behalf of growers everywhere. But if a company that invents a patented crop product allows purchasers to replicate the product for themselves, it will effectively give up any hope of such recovery. Absent any limitations on replication, the patentee would face immediate competition from every one of its customers, each of whom could immediately begin producing copies of the product for sale at prices that need not reflect the patentee's desire to secure an adequate return on its development costs. *See* Savich, Monsanto *v.* Scruggs: *The Negative Impact of Patent Exhaustion on Self-Replicating Technology*, 22 Berkeley Tech. L.J. 115, 115 (2007) (inventors of self-replicating technologies "face a unique challenge when trying to make a return on their investments . . . because every consumer turns into a potential producer"); Chambers, *Exhaustion Doctrine in Biotechnology*, 35 IDEA: The Journal of Law and Technology 289, 319 (1995) (absent prohibi-

tions on replication of patented organisms by purchasers, "[e]very purchaser of [a] transgenic organism would become a competitor of the inventor in the marketplace").

Because of these concerns, CropLife's members use licensing limitations on the replication of their patented crop plants and seeds to provide commercial access to their technologies without losing the ability to control free replication by their users. While the specifics of these limitations vary, they share several common features.

Some companies that invent and patent genetic traits also produce seeds incorporating the trait and sell the seeds directly to growers, subject to certain license limitations described below. Other patentees enter into licensing arrangements with seed companies, each of which is allowed to incorporate the patented trait into its own crop plant varieties.[15] Under such licenses, seed companies in various parts of the country are authorized to produce plants and seeds that combine patented traits with other locally valuable cultivation characteristics (germination time, heat tolerance, crop yield, etc.) and to sell the resulting seeds and plants to area growers.

Growers who purchase patented crop seeds—whether from a seed company or the patentee directly—also operate under a license from the patentee. That license typically includes several provisions. First, the grower is allowed to plant the patented seeds

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[15] Where the company's patent reads directly on the seed or plant variety, rather than a genetic trait, the company may still license the production of patented seeds to a seed company.

or plants and to sell the resulting crop as a commodity on the open market. Second, the grower is not allowed to replant the resulting crop to create a new generation of patented products. (This practice is commonly known as "seed saving."); Third, the grower is restricted from transferring the purchased seed to a third party who is not licensed by the patentee. In some cases, the grower's license comes in the form of a bilateral contract with the patentee. *See, e.g., Monsanto Co.* v. *McFarling*, 302 F.3d 1291, 1293-1294 (Fed. Cir. 2002). In others, the grower adopts a license printed or placed directly upon containers of the product (known colloquially as "bag tags"). *See, e.g., Pioneer Hi-Bred Int'l, Inc.* v. *Ottawa Plant Food, Inc.*, 283 F. Supp. 2d 1018, 1024-1026 (N.D. Iowa 2003). The grower may pay a separate patent license fee directly to the patentee or may pay the license fee as part of the purchase price of the seeds.

By entering into such licenses, growers obtain the yield and environmental benefits of patented crop technologies for a single season without being forced to pay the high cost of obtaining unlimited rights to those benefits in perpetuity. After the sale of the resulting crop as a commodity, growers are free to buy another year's worth of the patented seed pursuant to a new license with the patentee, but they are also free to choose seeds containing different patented technologies or conventional unpatented seeds that do not require any licensing agreement at all. If growers were only allowed to obtain long-term patent licenses, the correspondingly high cost of such licenses might for practical purposes eliminate such freedom.

CropLife members also benefit from limited license arrangements because they can spread the costs of product development across a large number of users.

Absent such licensing arrangements, crop technology patentees would be forced to charge astronomical prices for their goods—prices that would approximate the value of the patent right itself. *See* Chambers, 35 IDEA at 319 (absent enforceable prohibitions on breeding patented organisms, selling a copy of the organism "would amount to handing over the keys to the factory"). It is not at all clear that any purchaser would be able to afford such prices. And even if such a purchaser did exist, small growers "would be unable to obtain these improved varieties and would have to compete from a technologically inferior position." *Id.*

C. The Industry Cannot Rely Upon Contractual Mechanisms Alone

Contractual remedies afforded by the licensing mechanisms discussed above allow crop plant patentees some measure of assurance that they can prevent unauthorized reproduction of their products. Nonetheless, contract remedies alone cannot adequately protect the industry's investments in patented crop technologies.

In particular, contract remedies do not afford patentees sufficient protection against the danger that patented crops will be transferred without authorization to third parties, who will then make use of the invention without a license from the patentee. Even if the third-party grower obtains patented seeds from a legitimate licensee, the third party may not be bound, as a matter of contract law, by any contractual provisions between the patentee and the original licensee. If the third-party transferee were not bound by such provisions, it could make the product in competition with the patentee, destroying the value of the patent. If the patentee could identify the licensee that improperly transferred the seeds in question, the patentee might

be able to seek contract damages for breach of the license agreement, but it could be difficult for the patentee to establish the proper measure of consequential damages, let alone recover them—especially given the magnitude of the potential injury from transferring a self-replicating product to (perhaps several) other parties. The situation would be even more problematic if the third party were to acquire the patented product from an unidentified or unlicensed source and without actual notice of the patentee's license restriction. In such a situation, the patentee might have no contractual means whatsoever to recover the value of its lost rights.

In contrast to the limited protections offered by contract law remedies, patent law allows the inventor of a self-replicating patented crop product to pursue remedies (including injunctive relief) against anyone who threatens to make or sell the product in competition with the patentee. *See* 35 U.S.C. §§ 281, 283-285. Unlike contractual prohibitions, patent law protections apply to any person who acquires a patented product, even if he is an unlicensed third-party transferee. CropLife members have thus relied on the patent laws to prevent unlicensed growers from multiplying improperly-acquired seeds into a source of seeds for future crop generations, *see, e.g.*, *Monsanto Co.* v. *Scruggs*, 459 F.3d 1328 (Fed. Cir. 2006) (infringement action against grower who had not executed patent license), and unauthorized resale of patented seed products by end purchasers, *see, e.g.*, *J.E.M. Ag Supply*, 534 U.S. at 124 (infringement action against purchaser who resold seeds). The availability of such suits is a crucial predicate to continued innovation in the crop biotechnology industry.

II. THE COURT SHOULD AVOID SUGGESTING THAT THE PATENT EXHAUSTION DOCTRINE COULD INVALIDATE LICENSING LIMITATIONS ON SELF-REPLICATING PATENTED PLANT PRODUCTS

As the foregoing discussion makes plain, while biotechnology companies currently invest tremendous resources to deliver improved crop seeds and plants to America's growers, those investments are based upon an understanding that the law allows developers of patented crop plants to prevent unauthorized replication of the technology the plants embody. Therefore, in considering whether the patent laws can be applied to enforce licensing restrictions on the use of microprocessor devices after their sale, this Court should keep in mind the special characteristics of self-replicating products and the special needs of crop plant developers. The Court should take care not to disturb the Federal Circuit's present understanding that nothing in the exhaustion doctrine forces a company to relinquish all the patent rights it holds on self-replicating plant material merely by selling individual seeds or plants on which the patent reads; as that court has recognized, "[a]pplying the first sale doctrine to subsequent generations of self-replicating technology would eviscerate the rights of the patent holder." *Scruggs*, 459 F.3d at 1336. In addition, the Court should recognize that the exhaustion doctrine has only been applied to invalidate licensing restrictions on the use or sale of a product. Where a license limitation restrains the purchaser from freely *making* new copies of the product for himself, the doctrine does not apply.

A. Selling The First Generation Of A Patented Seed Does Not Exhaust The Patentee's Rights In Subsequent Generations Of Seeds Produced From The Original

When a grower purchases a patented transgenic seed or plant from the patent holder or a licensed manufacturer, the grower may acquire certain rights to use that seed. Under existing patent law, the grower and the patentee can negotiate so that the grower can license only those patent rights that he can exploit himself and that he can afford. As described above, growers of patented crops typically choose to pay for the right to plant a patented seed and to produce a crop for sale as a commodity, but not the right to replant the crop to make subsequent generations of seeds.

The patent exhaustion doctrine generally provides that the unrestricted sale of an individual patented product "exhausts" the patentee's rights with respect to that particular product. *See generally United States* v. *Univis Lens Co.*, 316 U.S. 241 (1942). But even supposing that the doctrine requires a patentee to give up some minimum rights in a particular patented item when it is sold, in the case of patented seeds or plants that principle would only affect the patentee's rights with respect to the *first generation* of products sold to a grower. Where subsequent generations of seeds or plants produced from a patented original embody the patented characteristics, the patent will read upon them as well. And because such new generations have never been "sold" by anyone, the patent exhaustion doctrine cannot give the grower any rights with respect to them, nor deprive the patentee of any rights. Instead, when the new generation is produced, it is "made" anew and comes into being fully subject to the patentee's rights under Title 35. *Cf. American Cotton-*

Tie Co. v. *Simmons*, 106 U.S. 89, 93-94 (1882) (after patented item was destroyed in the course of use, using its parts to reconstruct the item anew infringed the patent).

The Federal Circuit has applied this reasoning in a line of cases involving patents held by CropLife member Monsanto that read on transgenic soybean and cotton seeds. These cases hold that a company that sells seeds or plants covered by a valid patent may use licensing limitations to: (1) require the purchasing grower to sell crops from his harvest as a commodity; (2) prohibit the grower from saving any portion of the crop for replanting; and (3) enforce such limitations through a cause of action for patent infringement. *See Monsanto Co.* v. *McFarling*, 302 F.3d 1291, 1298-1299 (Fed. Cir. 2002) ("[S]ince the new seeds were not sold by the patentee they entailed no principle of patent exhaustion."); *Monsanto Co.* v. *McFarling*, 363 F.3d 1336, 1343 (Fed. Cir. 2004) (because patents on soybeans "read on all generations of soybeans produced . . . prohibiting the replanting of the second generation of [patented] soybeans" does not extend a patentee's statutory rights); *Monsanto Co.* v. *Scruggs*, 459 F.3d 1328, 1336 (Fed. Cir. 2006) ("Without the actual sale of the second generation seed to Scruggs, there can be no patent exhaustion.").

Under these cases, when a patentee (or its licensed manufacturer) sells a particular seed or plant, the patent laws do not force him to relinquish any rights he holds in subsequent generations of seeds "made" from the original article so long as the patent reads upon them as well. Nor do the patent laws force the grower to buy such rights in order to buy the first-generation article. This conclusion is merely the logical consequence of the nature of the statutory right to exclude

that an inventor acquires by virtue of patenting his invention. That right allows the patentee to restrain others from making, using, or selling any article that falls within the claims of the patent, *regardless of its origin.* One cannot defend against an infringement claim by arguing that he has made the patented article independently—or even invented it independently. Similarly, in the context of self-replicating patented crop products, a grower cannot claim any rights over patented second-generation seeds merely because he produced them himself using first-generation seeds purchased from the patentee.

B. The Patent Exhaustion Doctrine Does Not Address Prohibitions Against Making A Product

The patent exhaustion doctrine is inapplicable to self-replicating crop plants for another related reason: it does not address license limitations that restrain a purchaser from freely making new copies of the product.

Instead, in every case in which this Court has applied the patent exhaustion doctrine to prevent a patentee from enforcing a restriction concerning its patented goods, the restriction has concerned the "sale" or "use" of the product. *See, e.g., Univis Lens*, 316 U.S. at 250 (holding that patentee could not enforce license restrictions on "the use or disposition" of patented lens blanks); *Motion Picture Patents Co.* v. *Universal Film Mfg. Co.*, 243 U.S. 502 (1917) (rejecting infringement claim based on violation of license restriction prohibiting use of movie projector to display certain films); *Straus* v. *Victor Talking Mach. Co.*, 243 U.S. 490 (1917) (rejecting infringement claim based on "use" restriction in license intended to control resale price of patented article); *Bauer & Cie* v. *O'Donnell*, 229 U.S. 1 (1913)

(rejecting infringement claim based on minimum resale price restriction printed on package) (citing *Bobbs-Merrill Co.* v. *Straus*, 210 U.S. 339 (1908)); *Keeler* v. *Standard Folding Bed Co.*, 157 U.S. 659 (1895) (rejecting infringement claim based on purchase of folding beds and resale in territory other than where they were licensed for sale); *Adams* v. *Burke*, 84 U.S. 453 (1873) (rejecting infringement claim based on use of a coffin outside sales territory in which it was purchased).

Limiting application of the exhaustion doctrine to the rights to sell and use a patented product follows logically from the structure of the patent laws. The right "to make, the right to sell, and the right to use" a patented article are distinct, and the patentee may convey them together or separately as he wishes. *Brulotte* v. *Thys Co.*, 379 U.S. 29, 31 (1964). Applying the patent exhaustion doctrine to require a patentee to transfer the right to "make" a patented article as a necessary consequence of conveying any other rights would not only erase any distinction between the elements of the patent right, but also make it impossible for the patentee to realize the value of that right in the case of self-replicating technologies. *See* Chambers, 35 IDEA at 320-321 ("[R]eading the Exhaustion Doctrine in the broadest sense possible, and implying a legal right to use [a] replicating organism in any manner the purchaser wishes, could harm the economic incentives of the patent system.").

Patentees normally do not need to place or enforce limitations on an end user's right to "make" a patented article because, in most cases, products cannot be "used" to make copies of themselves. And in the rare situation in which an inanimate patented good *could* be used to copy itself—*e.g.*, in the case of a patented lathe

that could be used to turn the parts for another identical lathe—it would be clear that a purchaser does not acquire the right to make the copy simply by buying the patented original. *See Mitchell* v. *Hawley*, 83 U.S. 544, 548 (1873) ("[T]he purchaser of the implement or machine for the purpose of using it in the ordinary pursuits of life . . . does not acquire any right to construct another machine either for his own use or to be vended to another for any purpose.").

For some categories of products, however, a purchaser must necessarily "make" a patented product in order to "use" it. The petition for certiorari in this very case identified one such category: computer software. As the petition recognized, "a new, potentially infringing, 'copy' of computer software is created every time that software is loaded into memory." Pet. 8. Petitioners noted that software patentees address this problem by characterizing their users as "licensees" rather than purchasers. *Id.* ("software must always be licensed, not sold"). Petitioners' merits brief acknowledges that "[s]elf-replicating seeds pose the same problem" as computer software, Pet. Br. 43 n.13, and thus implicitly recognizes that the patent exhaustion doctrine cannot sensibly apply to sales of such products. As with computer software, copies of self-replicating seeds and plants must typically be made in order for the products to be used.

Moreover, unlike a patentee who seeks to maintain downstream price or alienation restrictions on a physical product, *see, e.g.*, *Univis Lens*, 316 U.S. at 244-245, a biotechnology patentee that limits a grower's right to make copies of an original seed or plant does not foreclose the grower's right to put the original to valuable use. To the contrary, a grower that purchases patented seeds pursuant to a seed-saving prohibition can still use

them for their most obvious and immediate purpose: raising crops for commodity sale. Growers who purchase and license patented seeds or plants to produce commodity crops thus differ from Petitioners, who maintain that Respondent's patent license terms foreclose their ability to put the microchips at issue to "their only reasonable use." Pet. 9; *see also Univis Lens*, 316 U.S. at 249 ("sale of an article which is capable of use *only in practicing the patent* is a relinquishment of the patent monopoly" (emphasis added)).

This Court's patent exhaustion decisions make clear that the doctrine does not invalidate limitations placed on a purchaser's right to "make" new copies of a product. Where a product *must* be "made" in order to be used, licensing limitations that are designed to allow a patentee to sell its products without also selling an unrestricted right to copy them similarly do not run afoul of the doctrine. Whatever might be the correct outcome in the case at bar, this case does not concern such limitations.

CONCLUSION

Amicus CropLife expresses no view as to the outcome of the case at bar. However, the organization and its members urge this Court not to call into question the settled principle that inventors of self-replicating crop plants may rely upon the patent laws to enforce limitations upon making subsequent generations of plants and seeds from patented originals, where the patent reads on both the original and its progeny. Any contrary suggestion would, practically speaking, eliminate the value of patents on crop plants and impair the Court's own conclusion that inventors may exercise patent rights over novel living organisms. *See Chakrabarty*, 447 U.S. at 313.

Respectfully submitted.

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